

Claims

1. Triggering unit for initiating pyrotechnic elements with a control component, a rectifier (12), an energy store (15), a voltage regulator (13), a data coupler (11), a current limiter and a suppressor circuit (10), characterised in that the control component is a programmable microprocessor (20) with integrated programme memory.
2. Triggering unit according to claim 1, characterised in that the microprocessor (20) comprises at least
- data inputs (21) and data outputs (22) and a switching output (24),
 - a data memory and
 - an oscillator
3. Triggering unit according to claim 2, characterised in that the oscillator can be calibrated by software.
4. Method for operating a triggering unit according to any of claims 1 to 3, characterised in that the microprocessor (20) is loaded with a programme corresponding to the current requirements during production of the triggering unit or at least before use thereof.
5. Method according to claim 4, characterised in that the triggering characteristic of the triggering unit is determined by the programme to be loaded.

6. Method according to claim 4, characterised in that the triggering characteristic of the triggering unit is determined according to the type of control.

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7. Method according to any of claims 4 to 6, characterised in that the microprocessor (20) can also process internet protocols.

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8. Method according to any of claims 4 to 7, characterised in that the operating software is implemented at random instants on an unprogrammed triggering unit or higher order subassembly (such as detonators).

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9. Method according to any of claims 4 to 8, characterised in that the programming lines of the microprocessor are used as data inputs and outputs.

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10. Method according to any of claims 4 to 9, characterised in that the switching output (24) can be reinforced by discrete components

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11. Method according to any of claims 4 to 10, characterised in that communication between the triggering unit and the ignition device can be uni- or bi-directional in a demand-driven manner.

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12. Method according to any of claims 4 to 11, characterised in that the triggering unit and the ignition device can communicate using various media, such as metallic conductor (cable), optical fibre, ultrasound or high frequency.